

Applic. No.: 10/035,867
Amdt. Dated June 30, 2005
Reply to Office action of May 23, 2005

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-13 remain in the application.

In item 1 on pages 2-4 of the above-mentioned Office action, claims 1-2 and 4-8 have been rejected as being unpatentable over JP Publication Number 10151324 (JP '324) under 35 U.S.C. § 103(a).

In item 2 on page 4 of the above-mentioned Office action, claim 3 has been rejected as being unpatentable over JP '324 in view of Herr et al. (US 6,086,241) and Kallinich et al. (US 4,919,170) under 35 U.S.C. § 103(a).

In item 3 on pages 4-5 of the above-mentioned Office action, claims 9 and 11-12 have been rejected as being unpatentable over JP '324 in view of Huber (US 3,785,620) under 35 U.S.C. § 103(a).

In item 4 on pages 5-6 of the above-mentioned Office action, claim 10 has been rejected as being unpatentable over JP '324 in view of MacInnis (US 5,437,851) and Kuroda et al. (US 5,078,973) under 35 U.S.C. § 103(a).

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In item 5 on page 6 of the above-mentioned Office action, claim 13 has been rejected as being unpatentable over JP '324 in view of Dunn, Jr. et al. (US 5,423,272) under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

a mixer for rendering a mixing of the flue gas with the reducing agent more uniform disposed downstream of said last catalytic converter in the given flow direction.

The Examiner has stated in the section entitled "Response to Arguments" on page 7 of the Office action that JP '324 does not disclose a mixer downstream of the last catalyst bed. However, the Examiner has further stated that it would be "prima facie" obvious to provide an additional mixer downstream of the last catalyst bed "since it has been held in the art that mere duplication of parts has no patentable significance unless a new and unexpected result is produced."

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Evidently, the Examiner did not recognize the underlying problem solved by the invention of the instant application because the Examiner has stated: "in addition, [in light] of specification on page [13], lines 14-20, it is not clear how a mixer downstream of the last catalyst converter contributes to the deNOxing of the flue gas being the fact the 'mixer' is located much further downstream of the last catalyst converter."

As becomes clear from the description on pages 1-5 of the specification, the object of the invention of the instant application is not to improve the deNOxing of the flue gas, but rather to reduce the influence of the ammonia slippage (downstream of the whole deNOxing process) on an installation part arranged downstream of the catalytic converter, in particular an air-preheater.

The problem is that, due to the ammonia slippage, a reaction takes place in such an installation and ammoniumhydrogensulfate is formed which is sticky and very corrosive so that it may damage the installation part.

To solve the problem, the mixer is arranged downstream of the last catalyst bed. The mixer leads to uniform mixing of the

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flue gas with residual ammonia (ammonia slippage) in such a manner that there are no longer any parts of the flue gas with an critical ammonia content of more than 2ppm (see page 6, lines 7-13 of the specification).

Therefore, there is a new and unexpected result provided with the arrangement of the mixer downstream of the last catalyst bed.

There is no indication in any of the cited references that it might be useful to make the flue gas with the residual ammonia uniform. Therefore, there is no hint of adding a mixer downstream the last catalyst bed of a deNOxing arrangement.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-13 are solicited.

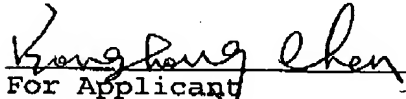
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In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

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